

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017927**Date Inspected:** 02-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of weld joint OBE11A-007 located on PCMK OBG 11DE/11EE, transverse joint, deck plate to deck plate. Welder was identified as 040367. QC was identified as ZPMC CWI Shi Lei (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Li Yang (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-223(2)1T-1 as verbally identified by QCA1. Also present at this location and appearing to be monitoring the welding and recording data was ABF Representative Zhang Xiao Bin.

FCAW welding of weld joint OBE11A-008 located on PCMK OBG 11DE/11EE, transverse joint, deck plate to deck plate. Welder was identified as 044473. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-223(2)1T-1 as verbally identified by QCA1. Also present at this location and appearing to be monitoring the welding and recording data was ABF Representative Zhang Xiao Bin.

FCAW welding of weld joint OBE11A-009 located on PCMK OBG 11DE/11EE, transverse joint, deck plate to

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deck plate. Welder was identified as 047353. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-223(2)1T-1 as verbally identified by QCA1. Also present at this location and appearing to be monitoring the welding and recording data was ABF Representative Zhang Xiao Bin.

SMAW repair welding of base metal located on PCMK OBG 11BE/11CE transverse joint area, edge plate. Welder was identified as 040320. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-345-SMAW-3G(3F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-CWR1957 presented to this QA Inspector and verbally identified by QCA1.

SMAW welding of weld joints DP718-001013~018 located on PCMK OBG 11BE/11CE transverse joint, deck plate I-rib to deckplate, holdback welds, south (bikepath) side. Welder was identified as 050289. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-4114-1 as verbally identified by QC1.

SMAW repair welding of weld joint OBW11B-006 located on PCMK OBG 11BW/11CW, transverse joint, side plate, north (counterweight) side. Welder was identified as 040611. QC was identified as QC1. Welding variables recorded by QC1 appeared to comply with WPS-345-SMAW-4G(4F)-FCM-1 as displayed on ZPMC Weld Repair Report B-WR16489 presented to this QA Inspector and verbally identified by QC1. QC1 informed this QA Inspector that this welding was being performed to correct indications as a result of ZPMC ultrasonic testing. ZPMC Weld Repair Report B-WR16489 referred to NDE Report UT-11W-045.

SMAW repair welding of various unidentified weld joints located in PCMK OBG segment 10AW at the segment lifting lugs at panel point 88, north (counterweight) side. Welders were identified as 047864, 200569. QC was identified as QC1. Welding variables recorded by QC1 appeared to comply with WPS-B-P-2313-TC-U4b-FCM and WPS-B-P-2112-FCM as verbally identified by QC1. QC1 informed this QA Inspector that this welding was being performed to per CO199, GGL-MQ-2016 as displayed on ZPMC documents written in almost all Chinese language. See photos below.

Heavy Dock

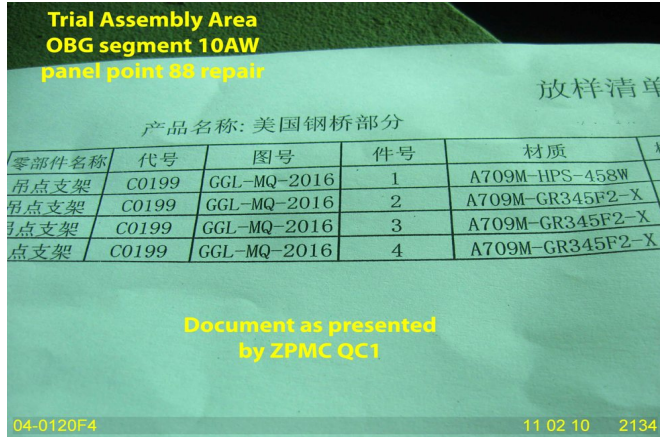
This QA Inspector randomly observed the following on the Heavy Dock:

All 4 towers, lift 4 were positioned on a base separate pedestal at end of the Heavy Dock. OBG segment 10E was positioned on the ship moored to the end of the Heavy Dock. West and north towers, lift 3 were positioned horizontally on the deck of the ship. No welding related work was being performed on any of the tower or OBG components on the Heavy Dock or the ship. The ZPMC 1600 ton floating crane was being moved to the edge of the seawall adjacent to the Heavy Dock and near OBG segment 10W.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Carreon, Albert

QA Reviewer